FOREST PRODUCTS LABORATORY
LIST OF PUBLICATIONS
ON
THE GROWTH, STRUCTURE, AND IDENTIFICATION OF WOOD

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U. S. Department of Agriculture
Forest Service
Forest Products Laboratory
Madison, Wisconsin 53705
In cooperation with the University of Wisconsin

FOREST PRODUCTS LABORATORY LIST OF PUBLICATIONS

ON

THE GROWTH, STRUCTURE, AND IDENTIFICATION OF WOOD

This list includes publications that give general information and the results of research by the U.S. Forest Service on the structure and the identification of wood; the effect of the cellular structure of wood on its strength, shrinkage, permeability, and other properties, the influence of environmental factors, such as light, soil, moisture, and fire, on the quality of wood produced; and secretions of economic value produced by trees and their exploitation.

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INSTRUCTIONS FOR OBTAINING PUBLICATIONS

Publications that are not available for distribution at this Laboratory are marked with an asterisk (*).

Single reports may be obtained free upon request from the Director, Forest Products Laboratory, Madison, Wisconsin 53705.

Federal Government bulletins, circulars, leaflets, etc., if not available for free distribution at this Laboratory, may be purchased at the prices indicated from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Send money order, draft, or cash; stamps or personal checks are not accepted.

Trade journals containing articles herein listed may often be purchased from the publishers or may be consulted in various libraries.

The Forest Products Laboratory reserves the right to furnish only those publications that will, in its judgment, give the information requested. Blanket requests or requests for a large number of copies of any individual article will not be filled except in unusual cases.

GENERAL AND MISCELLANEOUS

Title	Author	Publication and date
*Elementary statistical methods for foresters.	Freese, Frank	USDA Agr. Handb. 317. Jan. 1967. GPO 35¢
*Cyclitols in plants:biochemistry and physiology	Anderson, L., & Wolter, K. E.	Ann. Review of Plant Physiology 17:209-222. 1966.
*Nutritional requirements of Fraxinus callus cultures.	Wolter, K. E., & Skoog, F.	Amer. J. Botany (3):263-269. 1966.
Some common fallacies about wood.	Forest Products Laboratory	U.S. Forest Serv. Res. Note FPL-097. 1965.
Burlwood-Royalty's wood	Mitchell, H. L.	Amer. Forests 70(12):22-25, Dec. 1964.
Forest Products Laboratory: list of publications for furniture manufacturers, woodworkers, and teachers of wood shop practice	Forest Products Laboratory	FPL 64-032. 1964.
Linear regression methods for forest research.	Freese, Frank	U.S. Forest Serv. Res. Paper FPL 17. 1964.
Proceedings of the symposium on nondestructive testing of wood.	Forest Products Laboratory	U.S. Forest Serv. Res. Note FPL-040. 1964.
*Transpiration capacity of dormant buds of forest trees.	Wolter, K. E., & Kozlowski, T. T.	Botanical Gazette 125(3): 207-211, Sept. 1964.
New horizons in bowl turning.	Englerth, G. H. & Mitchell, H. L.	Forest Prod. J. 13(2):48-49, Feb. 1963. Also published by Home Craftsman 31(5): 84-85, Mar.-Apr. 1963.

* Not available at Forest Products Laboratory

Title	Author	Publication and date
Characteristics of Alaska woods.	Forest Products Laboratory	U.S. Forest Serv. Res. Paper FPL 1. 1963.
The Forest Products Laboratory: A brief account of its work and aims.		USDA Inf. Bull. 105, 29 pp., Rev. Dec. 1963.
*Products of American forests.	Champion, F. J.	USDA Misc. Pub. No. 861. (Slightly rev. 1961) 30 cents. GPO.
Some books about wood (a list).		FPL Rep. 399. 1961
Opportunities for graduate studies in forest products		24 pp., Jan. 1960.
Technique used in tracing the Lindbergh kidnaping ladder.	Koehler, Arthur	FPL Rep. 1420. Reissued 1958. +1965.
*Wood: Colors and kinds.		USDA Handb. 101. 1956. Available from the Superintendent of Documents, GPO, Washington, D.C. 20402. 50 cents.
Characteristics of some important commercial woods.		Separate from Forest Products Laboratory "Wood Handbook," USDA Handb. No. 72. 1955.
Structure of wood.		Separate from Forest Products Laboratory "Wood Handbook," USDA Handb. No. 72. 1955.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

Title	Author	Publication and date
Wood--a simple explanation; what it is and how we use it.	Champion, F. J.	FPL Rep. 1972. 1954. +1960.
*The U.S. Forest Products Laboratory.	Champion, F. J.	J. Forest Prod. Res. Soc. 4(4):153-157, Aug. 1954.
*Effect of heating wet wood on subsequent dimensions	Koehler, Arthur	Amer. Wood-Pres. Assn. Proc., 1933.
*Staining living trees on the stump.	Brown, W. R.	J. Forestry, Nov. 1928.

THE STRUCTURE AND IDENTIFICATION OF WOOD

(For additional references on wood structure, see also other headings)

General--not pertaining to individual species or genera

Title	Author	Publication and date
The effects of elevated temperature on certain wood cells.	Kollmann, F. P. & Sachs, I. B.	Wood Science & Tech. 1(1): S14/25, 1966-67.
*Another view of the ultrastructure of Cucurbita phloem.	Evert, R. F., Murmanis, L., & Sachs, I. B.	Annals of Botany 30:120. 1966.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

General (continued)

Title	Author	Publication and date
Aspects of sieve element ultrastructure in Primula obconica.	Tamulevich, S.R. & Evert, R. F.	Planta., Berlin, Germany 69:319-337. 1966.
Research on cellulose morphology.	Sullivan, J. D. & Sachs, I. B.	Forest Prod. J. 16(9):83-86. Sept. 1966.
*Evidence of lignin in the tertiary wall of certain wood cells.	Sachs, I. B.	In Cellular ultrastructure of wood plants, Wilfred A. Côté, Jr., Editor, Univ. of Syracuse Press. 1965.
*Ultrastructure of the secondary phloem of Tilia americana.	Evert, Ray F., & Murmanis, L.	Amer. J. of Botany 52(1): 95-106. 1965.
Inside wood--a short trip into the interior for the layman.	Forest Products Laboratory	U.S. Forest Serv. Res. Note FPL-014. 1963.
Torus of the bordered-pit membrane in conifers.	Sachs, I. B.	Nature 198:906-907. July 1, 1963.
Electron microscope expands horizons in wood research.	Sachs, I. B.	FPL Rep. 2256. 1962.
Determining the distribution of interstructural openings in wood.	Stamm, A. J. & Wagner, E.	Forest Prod. J. 11(3):141-144. Mar. 1961.
*Distribution of hot-water soluble material in cell walls and cavities of redwood.	Tarkow, H., & Krueger, J.	Forest Prod. J. 11(5):228-229. May 1961.

* Not available at Forest Products Laboratory

General (continued)

Title	Author	Publication and date
Identification of coniferous woods.	Kukachka, B. F.	Tappi 43(11):887-896. Nov. 1960.
Specific gravity of Populus species and hybrids.	Paul, B. H.	FPL Rep. 2060. 1956. +1963.
*Bark structure of North American conifers.	Chang, Ying-Pe	USDA Tech. Bull. 1095. Dec. 1954. GPO. 35¢.
*Arrangement of the cellulose crystallites in ray cells of white oak as determined by x-rays.	Gross, S. T., Clark, G. L., & Ritter, G. J.	Paper Trade J. Dec. 7, 1939.
*Crystal arrangement and swelling properties of fibers and ray cells in basswood holocellulose.	Ritter, G. J., & Mitchell, R. L.	Paper Trade J., Feb. 9, 1939.
*Microstructure of a wood pulp fiber.	Ritter, G. J., & Chidester, G. H.	Paper Trade J., Oct. 1928.
*Chemistry of wood:		
*IX-Springwood and summerwood.	Ritter, G.J., & Fleck, L. C.	Indus. & Eng. Chem. 18:608-609. 1926.
*VIII-Further studies of sapwood and heart wood.		Indus. & Eng. Chem. 15:1055. 1923.
*VI-The results of analysis of heartwood and sapwood of some American woods		Indus. & Eng. Chem. 15:1055. 1923.
*V-Results of analysis of some American woods.		Indus. & Eng. Chem., Nov. 1922.

* Not available at Forest Products Laboratory

+ Information reviewed and reaffirmed

By Species

American Woods

Species	Title	Author	Publication and date
Ash	How to distinguish black ash from commercial white ash lumber.		FPL Tech. Note D-11. Reissued 1958.
Basswood	*Ultrastructure of the secondary phloem of Tilia americana.	Evert, R.F. & Murmanis L.	Amer. J. of Botany 52(1): 95-106. 1965.
	*Crystal arrangement and swelling properties of fibers and ray cells in basswood holocellulose.	Ritter, G.J. & Mitchell, R.L.	Paper Trade J., Feb. 9, 1939.
Beech	*Some physical and mechanical properties of Amer. beech. (Copies available from Northeastern Forest Exp. Sta., 102 Motors Ave., Upper Darby, Pa. 19032.)	Paul, B.H., & Drow, J.T.	Northeast Tech. Com. on the Utilization of Beech Series No. 1, 17 pp., 1951.
Fir	Some physical and mechanical properties of noble fir.	Paul, B. H., Dohr, A. W., & Drow, J. T.	FPL Rep. 2168. 1959. +1965.

* Not available at Forest Products Laboratory
\+ Information reviewed and reaffirmed

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Hemlock	"Black streak" in western hemlock: Its characteristics and influence on strength.	Luxford, R. F., Wood, L.W. & Gerry, Eloise:	FPL Rep. 1500. 1943. +1960.
	Western hemlock "floccosoids" (white spots or streaks).	Gerry, Eloise	FPL Rep. 1392. 1943. +1960.
	Properties of western hemlock and their relation to uses of the wood (2 plates on structure).	Johnson, RPA. & Gibbons, W.H.	USDA Tech. Bull. 139. 1929.
Larch	Properties of western larch and their relation to uses of the wood (2 plates on structure).	Johnson, RPA. & Bradner, M.I.	USDA Tech. Bull. 285. 1932.
Maple	Bird's eye in maple are not due to dormant buds.	Pillow, M. Y.	Hardwood Record, Sept. 1930.
	...Same: Dormant buds are not the cause of bird's eye in maple		Wood Working Indus. Sept. 1929.

+ Information reviewed and reaffirmed

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Oak	Occurrence of tension wood and related seasoning defects in California black oak.	Wahlgren, H.E.	FPL Rep. 2106. 1958. +1965.
	Heartwood stain in red oak.	Sachs, I.B., Ward, J.C., & Bulgrin, E.H.	Holz als Roh- und Werkstoff 10:489-497. Oct. 1966.
	Second-growth oak: Part I (white oaks) Part II (red oaks)	Paul, B.H.	South. Lbr. J. 63(1):14-15, 30, Jan 1959.
	Some properties of California white oak and Oregon white oak	Paul, B.H., Dohr, A.W., & Drow, J.T.	FPL Rep. 2135. 1958. +1965.
	Specific gravity, shrinkage, and strength of tanoak.	Paul, B.H., Dohr, A.W., & Drow, J.T.	FPL Rep. 2041. 1955. +1960.
Pine	*Parenchyma cells of secondary phloem in Pinus strobus.	Murmanis, L., & Evert, R.F.	Planta 73(4):301-318. 1967.
	*Longitudinal shrinkage pattern in eastern white pine stems.	Foulger, A.N.	Forest Prod. J. 16(12): 45-47, Dec. 1966.
	*Some aspects of sieve cell ultrastructure in Pinus strobus.	Murmanis, L. & Evert, R.F.	Amer. J. Bot. 53(10): 1065-1078. Nov.-Dec. 1966.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Pine	Comparison of dimensions and fibril angles of loblolly pine tracheids formed in wet or dry growing seasons.	Hiller, C., & Brown, R.	Amer. J. Botany 54(4): 453-60, Apr. 1967.
	Resin distribution in second-growth ponderosa pine.	Paul, B. H.	FPL Rep. 2046. 1955. +1960.
Spruce	Radial streak (red) and giant resin ducts in spruce.	Gerry, Eloise	FPL Rep. 1391. 1942. +1956.

AMERICAN WOODS Series: Common and scientific names, distribution and growth, production, products, properties, uses and references for species and species groups following:

Alder, red
Baldcypress
Buckeye
Butternut
Cedar, Alaska
eastern red
incense-
northern white-
Port Orford white-
Fir, Douglas-
noble
Hackberry
Hemlock, eastern
western
Holly, American
Larch, western
Locust, black
Maple
Oaks, eastern
Osage-orange

+ Information reviewed and reaffirmed

By Species (continued)

American Woods (continued)

AMERICAN WOODS Series: (continued)

Pine, eastern white
ponderosa
red
southern
sugar
western white
Redwood
Spruce, Sitka
Sweetgum
Sycamore, American
Tamarack
Tupelo
Willow, black
Yellow-poplar

Separates from Silvics of Forest Trees of the United States, Agr. Handb. 271. 1965.

Alder, red
Ashes
Aspen, bigtooth
quaking
Baldcypress
Basswoods
Beech, American
Birch, paper
sweet
yellow
Buckeyes
Cedar, Alaska
Atlantic white-
eastern red
incense
northern white-
Port Orford-
western red
Cherry, black
Cottonwood, black
eastern
swamp
Dogwood, flowering
Elms
Fir, balsam
California red
Douglas-
grand
noble
Pacific silver
Subalpine
white
Hackberry
Hemlock, eastern
mountain
western
Hickory, bitternut
mockernut
nutmeg
pignut
shagbark
water
Honeylocust
Juniper, Rocky Mountain
western
Larch, western
Laurel, California
Locust, black

By Species (continued)

American Woods (continued)

AMERICAN WOODS Series: (continued)

Separates from Silvics of Forest Trees of the United States, Agr. Handb. 271. 1965. (continued)

Madrone, Pacific
Magnolia, southern
Maple, bigleaf
black
red
silver
sugar
Oak, black
bur
cherrybark
chestnut
chinkapin
laurel
live
northern red
nuttall
Oregon white
overcup
pin
post
scarlet
Shumard
southern red
swamp chestnut
water
white
willow
Pecan
Persimmon, common
Pine, eastern white
jack
Jeffrey
loblolly
lodgepole
longleaf
Monterey
pinyon
pitch
pond
ponderosa
red
sand
shortleaf
slash
sugar
Virginia
western white
Poplar, balsam
yellow-
Redwood
Sequoia, giant
Sassafras
Spruce, black
red
Sitka
white
Sweetgum
Sycamore, American

By Species (continued)

American Woods (continued)

AMERICAN WOODS Series: (continued)

Separates from Silvics of Forest Trees of the United States, Agr. Handb. 271. 1965. (continued)

Tamarack
Tanoak
Tupelos
Walnut and butternut
Willow, black

Foreign Woods

Title	Author	Publication and date
Revision of Dicorynia (Cassieae, Caesalpiniaceae)	Koeppen, R.C.	Brittonia 19:42-61. Jan.-Mar. 1967.
*Observations on Androcalymma (Cassieae, Caesalpiniaceae).	Koeppen, R.C.	Brittonia 15:145-150. Apr. 1963.
The woods of Liberia.	Kryn, J.M., & Fobes, E.	FPL Rep. 2159. 1959.
Some publications on domestic and foreign woods.		FPL Rep. 1479. Rev. 1961.
Distinguishing characteristics of mahogany and woods commonly called mahogany.		FPL Tech. Note 162. 1952. Reissued 1962.

* Not available at Forest Products Laboratory

Foreign Woods (continued)

Title	Author	Publication and date
*Some characteristics of Brazilian parana pine affecting its use for millwork.	Pillow, M. Y.	Forest Prod. Res. Soc. Proc., Vol. 5., pp. 297-302, 1951.

By Country of Origin

FOREIGN WOODS Series:

Species	Title	Author	Publication and date
Africa			
Agba,	Gossweilerodendron balsamiferum (Verm) Harms.	Kukachka, B.F.	FPL Rep. 2024. Rev. 1961.
Avodire,	Turraeanthus africanus (Welw. ex C.DC.) Pellegr.	Koeppen, R.C., & Kukachka, B. F.	FPL Rep. 1905. Rev. 1961.
Kokrodua,	Afrormosia elata Harms.	Kukachka, B.F.	FPL Rep. 1978. Rev. 1960.
Asia			
Palosapis,	Anisoptera spp.,	Kukachka, B.F.	FPL Rep. 2051. 1956. +1962.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

By Country of Origin (continued)

FOREIGN WOODS Series: (continued)

Species	Title	Author	Publication and date
Asia (continued)			
Sen,	Kalopanax pictus (Thumb.) Nakai.	Kukachka, B.F.	FPL Rep. 1979. 1957. +1962.
Introduced Species			
Athel tamarisk	Tamarix aphylla (L.) Karst.	Gerry, Eloise	FPL Rep. 1986. 1954. +1965.
Tropical America			
Alerce,	Fitzroya cupressoides (Molina) Johnston (=F. patagonica J. D. Hooker).		FPL Rep. 1982. 1954. +1961.
Angelique,	Dicorynia guianensis Amsh.,	Kukachka, B.F.	U.S. Forest Serv. Res. Note FPL-071. 1964.
Balsa,	Ochroma lagopus SW.,	Brush, W.D.	Unnumbered leaflet. 1945.
Corisa,	Chorisia insignis HBK.	Kukachka, B.F.	FPL Rep. 1996. Rev. 1961.
Crabwood,	Carapa spp.,	Kukachka, B.F.	FPL Rep. 2247. 1962.
Ishpingo,	Amburana acreana (Ducke) A.C. Smith	Kukachka, B.F.	FPL Rep. 1915. Rev. 1961. +1966.

+ Information reviewed and reaffirmed

By Country of Origin (continued)

FOREIGN WOODS Series: (continued)

Species	Title	Author	Publication and date
Tropical America (continued)			
Mahogany,	Swietenia macrophylla King.	Kukachka, B. F.	FPL Rep. 2167. 1959. +1965.
Marupa,	Simarouba amara Aubl.	Kukachka, B. F.	FPL Rep. 1956. Rev. 1960.
Primavera,	Cybistax donnell-smithii.	Kukachka, B. F.	FPL Rep. 2021. Rev. 1958. +1965.
Yemeri,	Vochysia hondurensis Sprague.	Kryn, J. M.	FPL Rep. 1946. Rev. 1956. +1962.

Fiber Lengths

Title	Author	Publication and date
Elements of wood fiber structure and fiber bonding	Simmonds, F. A., & Chidester, G. H.	U.S. Forest Serv. Res. Paper FPL 5, 1963.
*Length of fibers in certain Yucatan hardwoods.	Pillow, M. Y.	Tappi 35(5):238-240, May 1952.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

Title	Author	Publication and date
Predicting specific gravity of plantation grown red pine.	Maeglin, R.R.	U.S. Forest Serv. Res. Note FPL-0149. 1966.
Breeding for high-quality wood.	Mitchell, H.L.	U.S. Forest Serv. Res. Note FPL-066. 1964.
Correlation of fibril angle with wall thickness of tracheids in summerwood of slash and loblolly pine.	Hiller, Charlotte	Tappi 47(2):125-128, Feb. 1964.
Estimating size of the fibril angle in late wood tracheids of slash pine.	Hiller, Charlotte	J. of Forestry 62(4):249-252, Apr. 1964.
Pattern of variation of fibril angle within annual rings of: Pinus attenuradiata.	Hiller, Charlotte	U.S. Forest Serv. Res. Note FPL-034. 1964.
Investigation of lignin distribution in the cell wall of certain woods.	Sachs, I.B., Clark, I.T., & Pew, J.C.	J. of Polymer Science, Pt. C, Polymer Symposia, 2:203-212, 1963.
Protect imported carvings with PEG.	Mitchell, H.L., & Fobes, E.W.	Forest Prod. J. 12(10): 476-477, Oct. 1962.
A concept of intrinsic wood quality, and nondestructive methods for determining quality in standing timber.	Mitchell, H. L.	FPL Rep. 2233. 1961.
Tension wood in cottonwood... its effect on density, toughness, and compression.	Lassen, L. E.	Forest Prod. J., Mar. 1959.

Title	Author	Publication and date
Occurrence of tension wood and related seasoning defects in California black oak.	Wahlgren, H.E.	FPL Rep. 2106. 1958. +1965.
Juvenile wood in conifers.	Paul, B. H.	FPL Rep. 2094. 1957. +1965.
Swelling of springwood and summerwood in softwood.	Browne, F. L.	Forest Prod. J. 7(11): 416-424, Nov. 1957.
Effect of condition and kind of wood on groundwood pulp quality.	Schafer, E. R.	FPL Rep. 2220. 1961.
Significance of tension wood in furniture cuttings of red oak.	Lassen, L.E., & Cooper, G.A.	FPL Rep. 2193. 1960.
*The longitudinal shrinkage of cativo.	Fleischer, H.O.	Tropical Woods 105:1-5, Oct. 1956.
Specific gravity of Populus species and hybrids.	Paul, B. H.	FPL Rep. 2060. 1956. +1963.
Changes in spiral grain direction in ponderosa pine.	Paul, B. H.	FPL Rep. 2058. 1956. +1963.
Comparison of species of wood for gunstocks.	Paul, B. H.	FPL Rep. 1723. 1955. +1960.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES
(continued)

Title	Author	Publication and date
Detection of compression failures in wood.		FPL Rep. 1588. 1944. +1961.
Longitudinal shrinkage of wood.		FPL Rep. 1093. Rev. 1960.
Seasoning green-wood carvings with polyethylene glycol-1000.	Mitchell, H.L., & Iversen, E.S.	Forest Prod. J. 11(1):6-7. Jan. 1961.
*New antishrink treatment improves wood for gunstocks, other uses.	Mitchell, H.L.	Wood and Wood Products 65(11):50, 52, 102. Nov. 1960.
*New chemical treatment curbs shrink and swell of walnut gunstocks.	Mitchell, H.L., & Wahlgren, H.E.	Forest Prod. J. 9(12):437-441, Dec. 1959 and Supplement, Aug. 1961.
*Effect of condition and kind of wood on groundwood pulp quality.	Schafer, E.R.	Mechanical Pulping Manual, Chap. 3, Tappi Monograph Series No. 21, 1960. FPL Rep. 2220. 1961.
*Occurrence of compression wood in black spruce and its effect on properties of groundwood pulp.	Pillow, M.Y., Schafer, E.R., & Pew, J.C.	Tech. Assn. Pulp & Paper Indus. Tech. Papers, June 1936; Paper Trade J. Apr. 16, 1936; Paper Mill & Wood Pulp News, Apr. 11, 1936.
...Same: Compression wood in mechanical pulp.		FPL Rep. 1288. 1936. +1959.
Presence of tension wood in mahogany in relation to longitudinal shrinkage.	Pillow, M.Y.	FPL Rep. 1763. 1950. +1965.

* Not available at Forest Products Laboratory
\+ Information reviewed and reaffirmed

Title	Author	Publication and date
Studies of compression failures and their detection in ladder rails.	Pillow, M.Y.	FPL Rep. 1733. 1949. Reprinted 1962.
Detection of figured wood in standing trees.	Pillow, M. Y.	FPL Rep. 2034. 1955. +1960.
*Tension wood in eastern cottonwood.	Kaeiser, M., & Pillow, M.Y.	Central States For. Exp. Sta. Tech. Paper 149, 9 pp., illus., Nov. 1955.
Relationship between specific gravity and percentage of summerwood in wide-ringed, second-growth Douglas-fir.	Smith, Diana	FPL Rep. 2045. 1955. +1960.
Variations in fibril angles in slash pine.	Hiller, C.H.	FPL Rep. 2003. 1954. +1965.
How growth of white pine affects its properties for matches.	Pillow, M.Y.	FPL Rep. 1950. 1953. +1965.
Patterns of variation in fibril angles in loblolly pine.	Pillow, M.Y., Terrell, B.Z., & Hiller, C.H.	FPL Rep. 1935. +1965.
*Effects of tension wood in hardwood lumber and veneer.	Pillow, M.Y.	South. Lbrmn., Aug. 1, 1952.
...Same:		FPL Rep. 1943. 1953. +1962.

* Not available at Forest Products Laboratory
+ Information reviewed and reaffirmed

Title	Author	Publication and date
Chemical analyses of wood.		FPL Tech. Note 235. Rev. 1952.
Some characteristics of young plantation-grown red pine in relation to properties of the wood.	Pillow, M.Y.	Forest Prod. Res. Soc. J. 2(1):25-31, Apr. 1952.
*What is compression wood and tension wood; and what is their practical signifance?	Pillow, M.Y.	South. Lbrmn. 182 (2277):52, Feb. 15, 1951.
Guides for selecting tough ash.	Pillow, M.Y.	South. Lbrmn., Aug. 1, 1956.
Occurrence of gelatinous fibers and their effect upon properties of hardwood species.	Akins, Virginia, & Pillow, M.Y.	Forest Prod. Res. Soc. Proc., 1950.
*Variations in longitudinal shrinkage of second-growth Douglas-fir.	Pillow, M.Y.	J. Forestry, May 1949.
*Discoloration of swamp black gum pulpwood in storage.	Schafer, E.R., Pew, J.C., & Pillow, M.Y.	Tech. Assn. Pulp & Paper Indus. Tech. Papers, Series 22, 1939.
*Variation in the specific gravity of the summerwood of 4 species of southern pines.	Paul, B. H.	J. Forestry, June 1939.

* Not available at Forest Products Laboratory

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES
(continued)

Title	Author	Publication and date
*Structure, occurrence, and properties of compression wood.	Pillow, M.Y.	USDA Tech. Bull. 546. 1937. Out of print.
Properties and sulphate pulping characteristics of compression wood.	Pillow, M.Y., & Bray, M.W.	Paper Mill & Wood Pulp News, Dec. 21, 1935; Paper Trade J. Dec. 26, 1935.
Compression wood cause of bowing and twisting.	Pillow, M.Y.	Wood Work. Indus., Nov. 1930; Timberman, Nov. 1930; Wood Constr., Nov. 1, 1930; J. Forestry, Dec. 1930; South. Lbrmn., Mar. 1, 1931.
*Cause and prevention of raised grain.	Koehler, Arthur	Timberman, Feb. 1930; South. Lbrmn., Dec. 15, 1929.
*Effect of high temperature on the mode of fracture and other properties of a hardwood.	Pillow, M.Y.	Wood Work. Indus., Oct. 1929; Hardwood Rec., June 1930; South. Lbrmn., Oct. 15, 1929.

THE RELATION OF GROWTH CONDITIONS TO WOOD QUALITY

Title	Author	Publication and date
Framework of qualitative relationships in wood utilization.	Englerth, G.H.	U.S. Forest Serv. Res. Paper FPL 45. 1966.

* Not available at Forest Products Laboratory

Title	Author	Publication and date
Growth stresses and lumber warp in loblolly pine.	Hallock, Hiram	Forest Prod. J. 16(2):48-52, Feb. 1966.
Patterns of specific gravity variation in North American conifers.	Mitchell, H. L.	Proc. Soc. of Amer. Foresters, pp. 169-179. 1965.
Southern wood density survey, 1965 status report.	Forest Service	U.S. Forest Serv. Res. Paper FPL 26. 1965.
Western wood density survey report No. 1.	Forest Service	U.S. Forest Serv. Res. Paper FPL 27. 1965.
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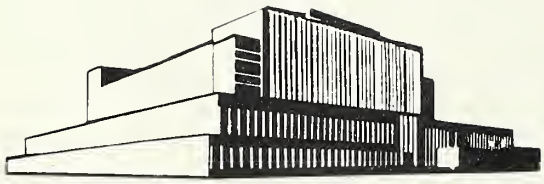

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